SECURITY TRONIX

THE IMAGE OF QUALITY

INSTALLATION MANUAL

ST-D600DN2812-DSHB

Super WDR, 3D DNR True Day & Night Dome Camera with Heater & Blower

PACKAGE CONTENTS

This package contains:

One ST-D600DN2812-DSHB Super WDR dome color camera with heater and blower
One installation manual
Mounting hardware and mounting template
One side cap
Video and external OSD control cable
RS485 terminal block

Note: The ST-D600DN2812-DSHB requires a minimum 12VDC 150mA (no heater or blower) power supply such as the ST-PS12VDC1A or ST-PS12VDC2A. The camera may also operate at 24VAC 360mA (heater and blower on).

PRODUCT DESCRIPTION

The ST-D600DN2812-HB is a professional grade, WDR (Wide Dynamic Range) day and night color dome camera designed to provide clear images even under intense back light conditions. The camera uses a 1/3" SONY Color Vertical Double Density CCD, provides 600TV lines of resolution in color and 700TV lines in B&W. The ST-D600DN2812-DSHB has a 2.8mm – 12mm lens for wide or narrow viewing. The 3 axis mount, built-in RS485 connection and on-screen display make this camera very easy to set up. The day and night feature supports low light illumination down to 0.0008Lux. An integrated heater and blower make this camera perfect for all weather applications. This is a dual voltage camera that can be powered with either 12VDC or 24VAC, however, 24VAC must be applied to activate the heater function.

SPECIFICATIONS

ST-D600DN2812-DSHB

Specifications (Typical)

1. Image Sensor	1/3" SONY Color Vertical Double Density CCD
2. Scanning System	NTSC
3. Horizontal Resolution	600TV Lines Color, 700TV Lines B&W
4. Synchronization	Internal H/V 15.734/59.94Hz Line Lock H/V 15.750/60Hz
5. Minimum Illumination	Sens-Up Off 0.12Lux (15IRE), 0.2Lux (30IRE), 0.4Lux (50IRE) F1.2 Sens-Up On 0.0002Lux (15IRE), 0.0005Lux (30IRE), 0.0008Lux (50IRE) F1.2
6. Scanning System	2 :1 interlace
7. Auto Electronic Shutter	1/60s~1/100,000s
8. Auto Gain Control	Automatic Low, Middle, High, Off
9. Lens	Aspherical 2.8 – 12mm DC Auto Iris ICR lens
10. S/N Ratio	>52dB (AGC off)
11. Privacy Masking	8 Windows (Polygonal, 8 Colors)
12. Day & Night	Color, B&W, Auto, Ext
13. Motion Detection	On/Off
14. Digital Zoom	X1.0 – x10
15. Gamma Correction	0.45
16. Video Output	1.0Vp-p/75Ω
17. WDR Level	120dB Max.

18. Operating Temperature	-4F° - 140°F
19. Operating Humidity	30% - 80%
20. Power Supply	DC12V 150mA, AC24V 360mA (blower & heater on)
21. Dimensions	7”x4.5”
22. Weight	2.5 lbs.

INSTALLATION AND OPERATION

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions.

This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

CAUTION: To reduce the risk of electrical shock do not remove the cover or back of this unit. No user serviceable parts are inside.

CAUTION: To prevent electric shocks and risk of fire hazards, do not use other than specified power source.

1. UNPACKING and HANDLING

Each unit is shipped assembled and factory tested.

Ensure that all accessories are removed from the container before discarding packing material

2. MECHANICAL INSPECTION

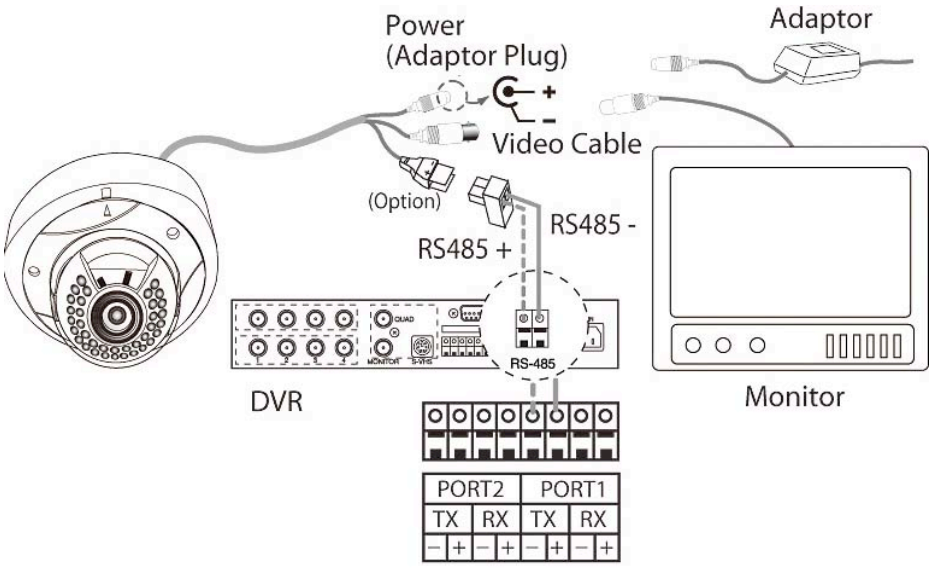
Inspect the front and rear of the equipment for shipping damage. Make sure the equipment is clean, and no connectors are broken, damaged, or loose. If equipment appears to be damaged or defective please contact your distributor or SecurityTronix at 1-610-429-1511 for assistance.

3. SPECIAL ATTENTION

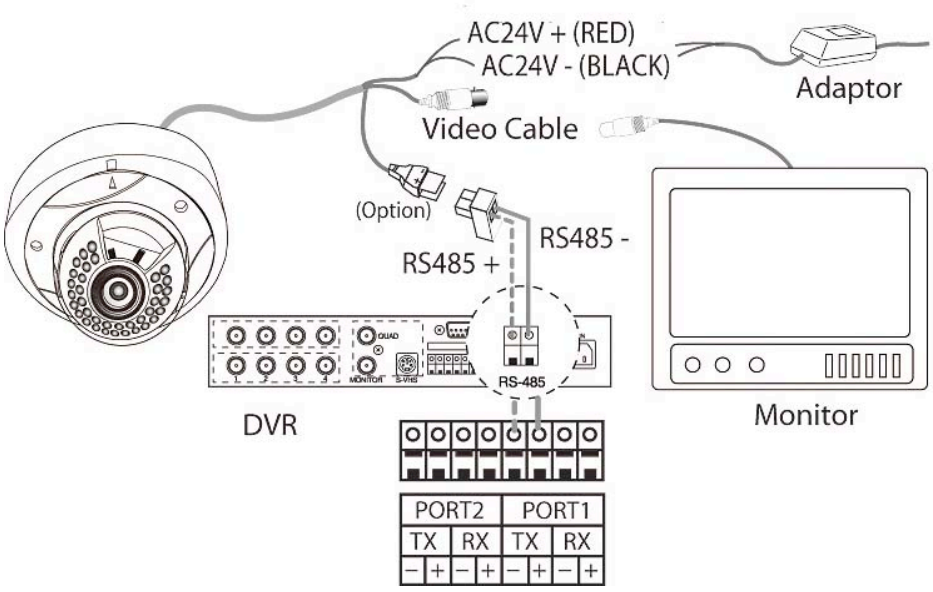
a. The installer must comply with electrical safety standards. There must be sufficient space between the camera’s power supply and video line and any high voltage equipment and/or cables.
b. To help ensure the camera’s life and proper operation do not point the camera towards the sun or strong light.
c. Do not install the camera in an environment where the temperature is above 140° F.
d. Do not install the camera near a magnetic field or a high-power motor.
e. Do not mount the camera near a radiator or heater.
f. Only use a dry cloth to clean the camera. If there is dirt that is difficult to remove wipe gently with a mild detergent. Never use strong or abrasive detergents.
g. Using a power supply other than specified will damage the camera.
h. Only qualified installers are allowed to install, test and disassemble the camera.
i. The camera is a low voltage product. If installed outdoors proper safety and lightening grounding are required.

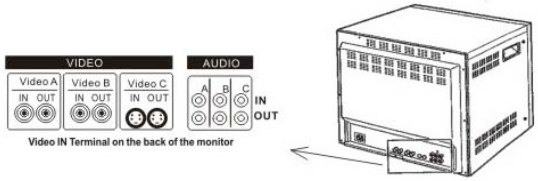
4. WIRING CONNECTIONS

DC Power Wiring

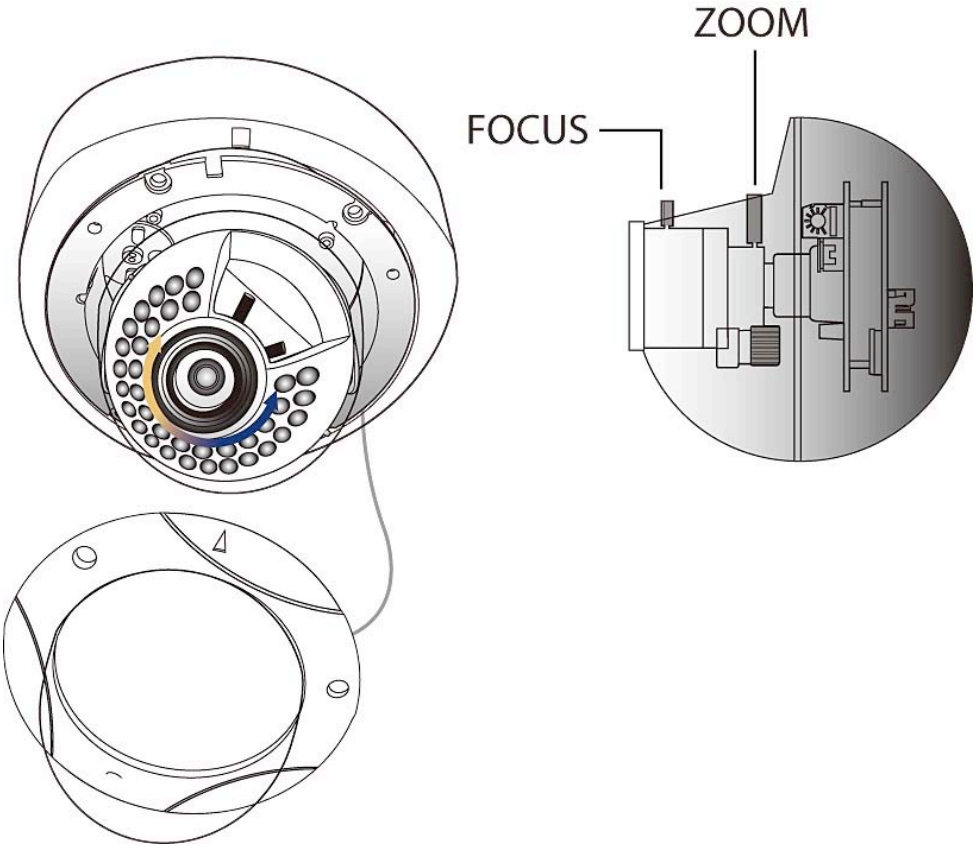


AC Power Wiring



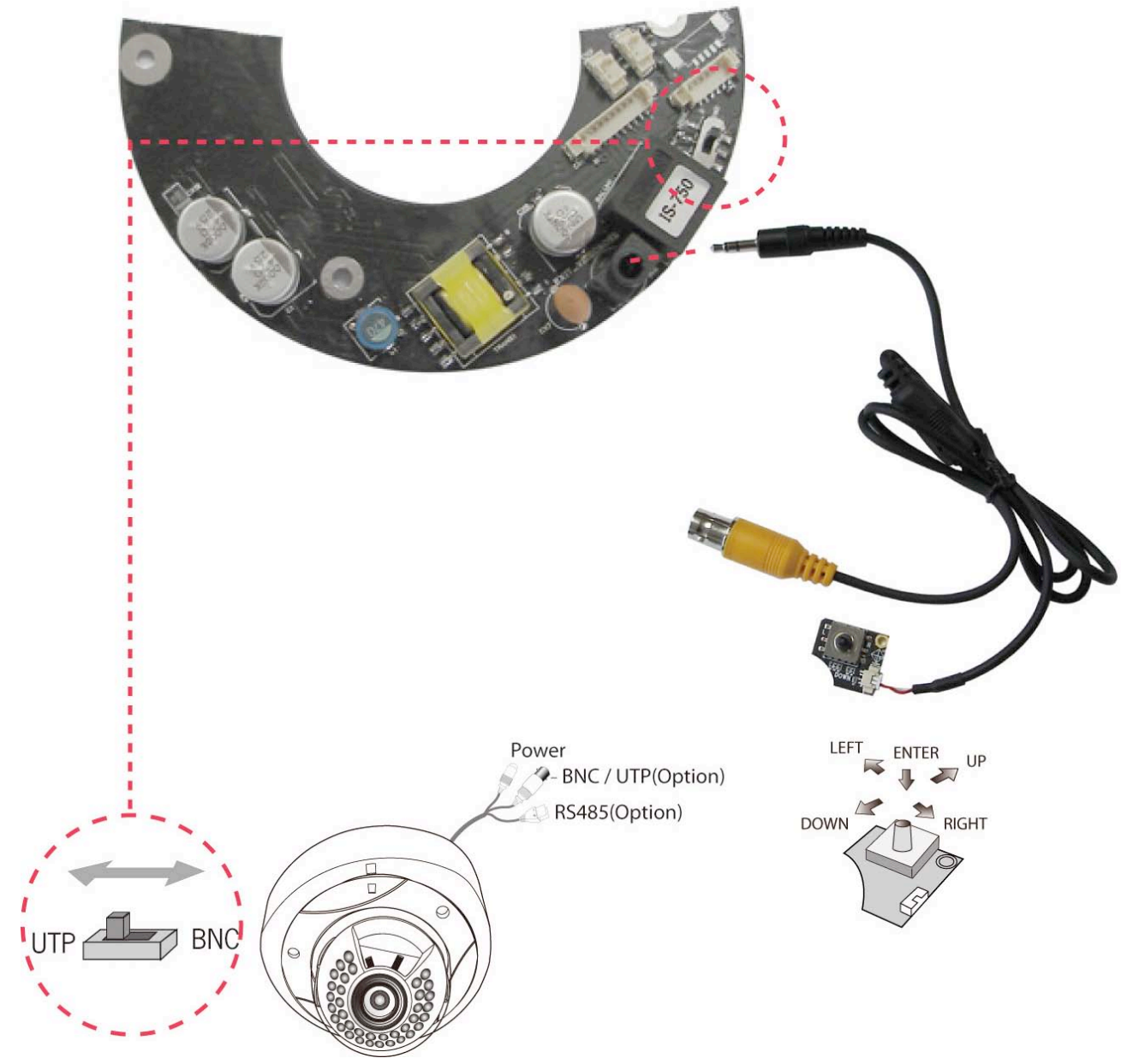


To Adjust the Varifocal Lens



5. OSD SETTINGS

Accessing and setting the camera functions are done through the camera's On Screen Display (OSD) via the included Video & External OSD Control Cable. A menu item may be selected my moving the joystick UP, DOWN, LEFT or RIGHT. The selected item may be entered by taping the joystick.



Warning:
This camera is set for BNC connections at the factory. Do not reset the switch to UTP.

OSD SETTINGS

EXPOSURE	LENS	DC, ELC	
	E.SHUTTER	AUTO, 1/50(PAL), 1/60(NTSC), 1/100.,000	
	BLC	ON<1~256>, OFF	
	WDR	OFF	
		ON	WDR LEVEL<0~10>
	AGC	OFF, LOW, MID, HIGH	
	SENS-UP	AUTO,OFF, MANUAL (x512~x2)	
	RETURN		
COLOR	WB MODE	AWC, ATW, MANUAL, PUSH	
	R-Y GAIN		
	B-Y GAIN		
	RETURN		
DAY&NIGHT	D&N MODE	AUTO, DAY, NIGHT, EXT	
	LEAD TIME	<1. 3. 5. 10>	
	BURST	ON, OFF	
	RETURN		
FUNCTION	MIRRIO	ON, OFF, V-FLIP, ROTATE	
	SHARPNESS	<0~40>	
	GAMMA	0.45, 0.5, 0.6	
	FREEZE	OFF, ON	
	NEGA	OFF, ON	
	3D-DNR	OFF, LOW, MID, HIGH	
	D.ZOOM	OFF	
		ON	ZOOM(X1.0~X10) PAN(-128~127) TILT(-128~127) SHOW POS(OFF,ON)
	LSC	OFF, ON<0~50>	
	ECLIPSE	OFF	
		ON	SET LEVEL<LOW, MID, HIGH> HI-INV<OFF, ON>
	DIS	OFF, ON	
	RETURN		
MOTION	MOTION	OFF, ON	
	SET WINDOWS		
	ALL SET		
	ALL CLEAR		
	SENSITIVITY		
	SHOW	OFF, ICON, TRACE	
	DELAY TIME	<1~15>	
	RETURN		
PRIVACY	MASK1	OFF	
		ON	SET WINDOWS

			RED, MAGENTA, YELLOW, GRAY>
	MASK8	OFF	
		ON	SET WINDOWS
			RED, MAGENTA, YELLOW, GRAY>
	RETURN		
SYNC	SYNC MODE	AUTO, INTER	
	V-PHASE	<0~199>	
	RETURN		
COMMUNICATION	ADDRESS	<0~254>	
	BAUD RATE	<2400~ 38400>	
	PROTOCOL	PELCO-D	
	RETURN		
SPECIAL	TITLE	OFF	
		ON	EDIT
			RESET
			POSITION
	LANGUAGE	ENG	
	DPC	OFF, AUTO	
	FILTER	BLUE, RED	
	RETURN		
EXIT	SAVE&EXIT		
	FACTORY SET		
	EXIT		
	RETURN		

6. WIDE DYNAMIC RANGE, WEIGHT, 3D-DIGITAL NOISE REDUCTION and ECLIPSE

Wide Dynamic Range (WDR) allows the capturing of images at all light levels. The camera offers 10 WDR levels selectable through the settings menu.

- WDR Low Level (0 – 3): WDR mode for general or low light conditions.
- WDR Middle Level (4 – 7): WDR mode for medium light conditions.
- WDR High Level (8 – 10): WDR mode for strong or bright light conditions.

Factory default is WDR Low Level 0 with the WDR mode set to ON.

Weight levels allow a dark area to become brighter. A lower Weight level is selected for a darker condition while higher levels are for increased brightness.

3D-Digital Noise Reduction (DNR) reduces the background noise in a low luminance environment. Upgraded 3D filtering ensures an even more clear image. Per the menu settings:

- DNR Level High – The image is clearer, but the potential of a ghost image is increased.
- DNR Level Low – The image is less clear, but the potential for a ghost image is reduced.

The **Eclipse** function is used to recognize detail under strong light conditions (e.g., to recognize a vehicle license plate number when the ambient light is stronger than the vehicle's headlight). Note the ECLISPE mode should be off while using the WDR ON.

7. TROUBLESHOOTING

a. No picture after applying power – (i) check all plugs and cables are securely connected to the proper connectors; (ii) ensure your power supply is providing the correct voltage and current.

b. The picture has ripples – (i) check to see if the power supply is experiencing AC ripple, if so a filter may be required; (ii) determine if the monitor is faulty; (iii) determine if other peripheral equipment is causing ripple and if so make the necessary adjustments.

c. The picture background continuously changes color – a fluorescent lamp's magnetic field may cause color roll, therefore, reduce the number of fluorescent lamps or increase the distance between the camera and the lamps.

d. The picture appears smeared – (i) the power supply voltage level may be unstable, therefore, try another power supply; (ii) ensure the cables are correctly connected and/or the cables are of the correct impedance.

e. Other interference may require a SecurityTronix ground loop isolation filter.

f. Additional troubleshooting assistance can be found on-line at www.securitytronix.com in addition to support from SecurityTronix sales engineers at 1-610-429-1511.